

REMARKS

Upon entry of the amendments, claims 1-8 will be pending in the application. Applicants provide the following comments to the recent Office Action.

Claim Rejections – 35 U.S.C. § 112

Claims 1-3 are rejected as allegedly indefinite because the claims do not specify the initial toner characteristics. The Examiner asserts that an artisan would need to know the volume of the initial toner particles to determine the volume of the replenishment toner particles.

While the artisan of ordinary skill would understand the initial toner particle volume from Applicants' overall disclosure, including the specification, Applicants have amended claim 1 to expressly identify the percent by volume of toner particles having the specified diameter in the initial toner. Support for this amendment can be found in paragraph [0037] on page 14 of the specification.

Applicants respectfully request that the rejection be withdrawn because the claims comply with the requirements of 35 U.S.C § 112.

Claim Rejections – 35 U.S.C. § 102

Claims 1-3 are rejected as anticipated by Mikuriya (US 5,849,453). The Examiner asserts that Mikuriya discloses a replenishment toner (see col. 14, l. 24-col.15, l. 53) that can be used in a two-component developer (col. 5, l. 14-15; col. 10, l. 1 et seq.). The Examiner asserts that Example 1 of Mikuriya discloses that a percentage of toner

particles having a diameter of 5.04 μm or smaller will be 1.55 times the amount of similar particles in the initial toner. The Examiner explains that the initial toner of Mikuriya will have 13.0 % of 5.04 μm or smaller toner particles and that the recovered toner will have 20.1 % of 5.04 μm or smaller toner particles. This allegedly results in the recovered toner having 1.55 times the amount of particles when compared to the initial toner.

Applicants have carefully considered the rejection and request that it be withdrawn because Mikuriya fails to inherently or explicitly disclose every feature of independent claim 1.

Claim 1 details that the image forming apparatus is “initially loaded with an initial toner containing 0.5 to 1.5% by volume of toner particles with particle diameters of 5.04 μm or smaller”. This claimed volume is much lower than the 13% disclosed in Mikuriya. Therefore, the amount of 5.04 μm or smaller toner particles present in the claimed replenishment toner is going to be lower than the amount of toner particles that are present in the recovered toner of Mikuriya. The cited prior art fails to teach a range within, overlapping, or touching the claimed range.

Applicants also note that although the cited patent makes reference to two-component toner, the Example relied upon by the Examiner involves a one-component toner. This is different from the claimed invention and it is questionable whether the findings detailed in the cited prior art are pertinent when examining the patentability of the claimed invention, which utilizes a two-component developer.

Furthermore, Applicants assert that Mikuriya utilizes the same toner as the initial and as the replenishment toner (see col. 17, l. 54-56). This is in stark contrast to the claimed invention. Table 1 of Mikuriya shows the particle size distribution of the initial

and replacement toner, whereas Table 2 shows the particle size distribution of the collected/recovered toner.

Applicants note that Fig. 3 of Mikuriya demonstrates that the collected toner is fed through pipe 49 to the supply hopper 42 where it is mixed with the replenishment toner. The mixture is then supplied to the developer 43. Therefore, the combination of the collected toner and initial toner could arguably correspond to the replenishment toner of the present invention. However, it is also clear that the amount of collected toner transferred to the supply hopper would be very small when compared to the amount of initial toner already present in the supply hopper. As such, the percentages asserted in the Office Action fail to accurately reflect the invention detailed in Mikuriya. One skilled in the art would not find any inherent or explicit disclosure anticipating the claimed invention from the results referenced by the Examiner.

Due to the foregoing, Applicants respectfully request that the anticipation rejection be withdrawn in regards of independent claim 1 and dependant claims 2 and 3.

Claim Rejections – 35 U.S.C. § 103

Claims 2 and 3 are rejected as obvious in view of Mikuriya. Applicants respectfully request that this rejection be withdrawn.

As discussed above, claim 1 is not anticipated by Mikuriya. Furthermore, claim 1 would not be considered obvious to one skilled in the art based upon Mikuriya. Likewise, dependant claims 2 and 3 are also not obvious.

New Claims

New claims 4-8 recite additional embodiments of the invention that are not anticipated or obvious in view of the cited prior art.

Support for claims 4 and 7 can be found in paragraph [0014] on page 6. Support for claim 5 and 8 can be found in the Examples and by Table 1. Support for claim 6 can be found in paragraph [0037] on page 14.

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Applicants respectfully assert that the application should be allowed. If any additional fees are due in connection with the filing of this response, such as fees under 37 C.F.R. §§ 1.16 or 1.17, please charge the fees to Deposit Account No. 02-4300. Any overpayment can be credited to Deposit Account No. 02-4300.

Respectfully submitted,

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